

S P E C I E S.

* *Acaulia*.

1. *POLYTRICHUM tenue*, fol. lanceolatis acuminate adpressis integerrimis, capsula cylindrica erecta.

MNIUM polytrichoides var. γ . Linn. Sp. Pl. 1577. Dill. Musc. 434. t. 55. f. 12.

Hab. in Nova Scotia, locis sterilibus prope Halifax.

The leaves of this are but few in number, and press close round the base of the peduncle; the inner ones are longer and more acutely pointed than those on the outside; they are thin, lanceolate, sharp-pointed, and entire on the edges, with a strong middle nerve; and in a dried state they are of a reddish brown colour.—The *peduncle* is nearly an inch long, of a deep straw-colour, and closely surrounded at the base by a tubular *perichætium*.—The *capsule* is cylindrical and erect; the *operculum* reddish, almost flat, and slightly pointed in the centre.—The exterior *calyptra* is of a light straw-colour, and somewhat more than double the length of the inner one, which is smooth and of the same colour, but somewhat paler.

2. *POLYTRICHUM subrotundum*, fol. lanceolatis obtusis integerrimis rigidis, capsula turbinata erectiuscula.

MNIUM polytrichoides Linn. Sp. Pl. 1576. Dill. Musc. 428. t. 55. f. 6. A. B. C. D. E. F.

P. subrotundum Hudf. Fl. Angl. ed. 1. 400. Scop. Fl. Carn. 134. n. 2. Vaill. Par. 131. tab. 26. f. 15.

P. pumilum Swartz. in Act. Stockholm. 1795. p. 271.

Hab. in ericetis, et locis sterilibus Angliæ, &c.

This

This has no *stalk*.—The *leaves* are lanceolate, obtuse, thick, short, and rigid, without any apparent middle nerve, and entire on the edges: they are crowded round the base of the peduncle; of a dark green colour when recent, but blackish when dried.—The *peduncle* is from a quarter to about three quarters of an inch long, of a dark reddish colour, and surrounded at the base by a vaginal *perichætium*.—The *capsule* is short, turbinate and somewhat erect: the *operculum* is flat, but pointed in the centre, and the rim is conspicuously fringed with minute dents.—The exterior *calyptra* is conical, of a dark ferruginous colour, and about twice the length of the inner one.

Dr. Swartz having lately sent me a specimen of his *P. punilum*, I carefully compared it with the above, and found it to be the same species.

3. *POLYTRICHUM nanum*, fol. lanceolatis obtusiusculis, apice obscure ferrulatis, capsula hemisphærica cernua.

MNIUM polytrichoides Linn. *Sp. Pl.* 1576. *Dill. Musc. tab.* 55. *f.* 6.

G. H. I. K. L.?

P. nanum Hedw. *Stirp. Crypt. vol.* 1. 35. *tab.* 13.

Hab. in ericetis, et locis aridis Angliæ, &c.

This species has scarcely any *stalk*.—The *leaves* are lanceolate, somewhat obtuse, and entire on the edges towards their base, but slightly ferrulated towards their tips: they are not so thick and stiff as in the preceding species, but are somewhat longer.—The *peduncle* is from half an inch to upwards of an inch long, of a deep orange colour, and arises out of a vaginal *perichætium* about one tenth of an inch long.—The *capsule* is short, hemispherical, a little inclined or somewhat nodding, and the rim is beautifully fringed with

with minute dents: the *operculum* is flat, but in the centre very slightly pointed.—The exterior *calyptra* is short and conical, ending in a small *muco*; it is of a light ferruginous colour, and double the length of the inner one.

This and the preceding species have been confounded together by most authors, although they appear very distinct; and I am doubtful whether Dillenius himself has not fallen into this mistake, as he seems to have given both under the same figure: but having delineated them on two separate papers in his original drawings, which are in Sir Joseph Banks's library, there is reason to suppose that he originally intended them to be distinct species.

** *Caule simplici.*

4. *POLYTRICHUM aloides*, fol. lanceolatis conniventibus obtusiusculis rigidis apice ferratis, capsula cylindrica obliquata.

MNIUM polytrichoides var. *β.* Linn. *Sp. Pl.* 1577. *Dill. Musc.* 429.

t. 55. *f.* 7. *Vaill. Par.* 131. *t.* 29. *f.* 11. *Weiss Crypt.* 173.

P. nanum Lightf. *Fl. Scot.* 701. *Huds. Fl. Angl. ed. 2.* 470.

P. aloides Hedw. *Stirp. Crypt. vol. 1.* 37. *tab.* 14.

Hab. in ericetis, et locis sterilibus Angliæ, &c.

The *stalk* of this is about a quarter of an inch high.—The *leaves* are of a dark green colour, and press close together round the stalk, especially in a dried state: they are thick, lanceolate, somewhat obtuse, and finely serrated towards their tips.—The *peduncle* is from half an inch to an inch long, of a deep straw-colour tinged with red, and issuing from the top of the stalk out of a tubular *perichæcium* about a tenth of an inch long.—The *capsule* is cylindrical and a little

little oblique, with a flat *operculum* pointed in the centre.—The exterior *calyptra* is of a light ferruginous colour, especially towards the tip, and is double the length of the inner one.

5. *POLYTRICHUM convolutum*, fol. linearibus involutis apice ferratis; ficcitate contortis, capsula cylindrica erectiuscula.

P. convolutum Linn. fil. *Method. Musc.* 33. t. 1. f. 3. Swartz *Prod.* 139.

Hab. in India occidentali, &c.

The *stalk* is erect, and varies from an inch to about three inches in height.—The *leaves* are longer and more crowded towards the top of the stalk: they are slender, linear, with their edges finely ferrated towards their tips; and in a dried state they are of a dark brown colour, with their edges turned in, so as to appear channelled.—The *peduncle* is from an inch to an inch and half long, issuing from the summit of the stalk out of a loose tubular *perichæcium* about a quarter of an inch long.—The *capsule* is somewhat erect, short and cylindrical, with a strong rim finely dentated.—The exterior *calyptra* is of a light ferruginous colour, and about two-thirds longer than the inner one.—The male roseaceous cups are produced upon the summits of separate stalks, and are sometimes proliferous.

6. *POLYTRICHUM magellanicum*, fol. lineari-lanceolatis acutis denticulato-ferratis, capsula oblonga sub-cylindrica erectiuscula, calyptra simplici. TAB. 6. FIG. 1.

P. magellanicum Linn. *Suppl. Plant.* 449.

Hab. in freto magellanico, et in Nova Zeelandia.

This grows stiff, erect, and from two to even six inches high: the lower part of the *stalk* is naked, but the upper part is sur-
rounded

rounded with spreading leaves, which are longer and more copious at the termination of each year's growth and round the base of the peduncles.—The *leaves* are long, spreading, linear-lanceolate, and ferrated with deep dents on their edges: in a dried state they are of a reddish-brown colour, and their edges turn in, so as to give them a round or subulate appearance.—The *peduncles* are shining, of a light straw-colour, and from two to three inches long, issuing out of a tubular *perichæcium* from the summit of the stalk; but as a young shoot frequently issues from near their base, the peduncle thereby becomes lateral, and thus there are often two on the same stalk, one terminal and the other lateral.—The *capsule* is oblong, nearly cylindrical, and somewhat erect: the *operculum* is conical, with a long slender point turning sideways.—The exterior woolly *calyptra* is wanting: the inner one, which is smooth, subulate, and of a dark brown colour, is about three tenths of an inch long, with a little roughness appearing about the point: as the capsule swells it splits sideways from the bottom upwards.—The male rosaceous cups are proliferous, and upon separate stalks, which in general produce stronger and more crowded leaves.

I was enabled to ascertain this plant by carefully comparing it with the original specimen of *P. magellanicum* in the Linnean Herbarium.

7. *POLYTRICHUM attenuatum*, fol. lineari-lanceolatis carinatis cartilagineo-ferratis patulis, capsula quadrangulari cernua, basi contracta. TAB. 6. FIG. 2.

Hab. in ora occidentali Americæ Septentrionalis.

The *stalk* of this species is simple, erect, and from an inch and half to upwards of three inches high.—The *leaves* are spreading, linear-lanceolate, with rough hispid points, and whitish cartilaginous edges deeply ferrated; the middle nerve is strong, whitish, and on the

the back slightly dentated towards the tip. When recent the leaves are of a dark glaucous colour, but in a dried state they become rigid, and of a dark brown colour, with their edges curled in so as to make them appear round and channelled.—The *peduncle* is from two to four inches long, of a reddish straw-colour at the bottom, but much lighter towards the top: it arises from the top of the stalk, out of a close cylindrical sheath about one-eighth of an inch long.—The *capsule* is quadrangular, nodding, and a little contracted at the base, but not so much as to form an *apophysis*: the *operculum* is conical: the rim has about sixty-four minute dents.—The exterior *calyptra* is straw-coloured, of a pointed conical figure, and about a third longer than the inner one, which is smooth and of the same colour.

8. *POLYTRICHUM gracile*, fol. lanceolatis acutis carinatis denticulato-ferratis erectiusculis, capsula obovata subangulata obliquata, apophysi destituta. TAB. 6. FIG. 3.

Hab. in alpinis Scoticis, Dickson.—*et in Suecia*, Swartz.

This is simple-stalked, and of a slender appearance, from an inch to upwards of two inches in height.—The *leaves* are small, and remotely placed on the lower part of the stalk; but are larger, erect, and more crowded towards the top: they are of a light green colour, short, lanceolate, with acute hispid points, and ferrated with deep dents on their edges: the middle nerve is strong, whitish and dentated on the back, especially toward the tip.—The *peduncle* is about three inches long, shining, and of a deep orange colour, and arises from the summit of the stalk out of a cylindrical sheath about two tenths of an inch in length.—The *capsule* is nearly ovate, and obscurely angulated, without any apparent *apophysis*; the *operculum* is small and conical, ending in a straw-coloured point.—The exterior

calyptra is of a deep ferruginous colour, and about a third part longer than the inner one.

I was favoured with this species by Mr. Dickson, who collected it on Ben Nevis in Scotland, about half way up the mountain. I also received the same from Dr. Swartz of Stockholm, who lately discovered it in Sweden. His specimen has the lower leaves and calyptra black, which I consider only as accidental distinctions. I was at first inclined to consider it as a variety of *P. attenuatum*; but its slender appearance, its leaves being shorter, erect, and thinner set, and the difference in the form of its capsule, induced me to make it a distinct species; and I have some doubts whether it may not be the same which Dillenius has figured in *Tab. 54. fig. 2.* I have not however ventured to quote that figure till I am enabled to remove my doubts by a sight of Dillenius's specimen. Both this and the foregoing are to be distinguished from *P. commune* by their carinated leaves, with strong whitish middle nerves, by having no membranaceous leaves round the base of their peduncles, and no apparent apophysis at the base of their capsules.

9. *POLYTRICHUM commune*, fol. lineari-lanceolatis acutis ferrulatis, capsula quadrangulari, apophysi subjecta.

P. commune Linn. *Sp. Pl.* 1573. *Dill. Musc.* 424. t. 54. f. 1.

P. ferratum Schranck *Fl. Bav.* 2. 446. n. 1371.

Hab. in sylvis, et ericetis humidis.

The *stalk* is erect, from two to five inches and upwards in height.—The *leaves* are stiff, linear-lanceolate, ending in acute hispid points, and finely ferrulated on their edges: they are of a bright green colour when fresh, but of a reddish brown when dried or in decay: those on the top of the stalk, surrounding the base of the peduncle, differ from the others in being more erect, whitish, membranaceous, and

and entire on their edges, with greenish middle nerves, ending in long filaceous tips.—The *peduncle* is from two to four inches long, of a shining deep orange colour, and issuing from the top of the stalk out of a tubular sheath about a quarter of an inch in length.—The *capsule* is quadrangular, with an *apophysis* at the base, and is of a greenish colour when young, but reddish when ripe: the *operculum* is flat or rather concave, with a small point projecting from the centre.—The exterior *calyptra* is ferruginous, and about double the length of the inner one.

10. *POLYTRICHUM piliferum*, fol. lanceolatis confertis integerrimis rigidis apice piliferis, capsula quadrangulari, apophysi subiecta.

P. commune var. γ . Linn. *Sp. Pl.* 1573. Dill. *Musc.* 426. t. 54. f. 3.

P. piliferum Sebrep. *Spicil.* 74. n. 1031.

Habitat in ericetis, et pascuis montosis Angliæ, &c.

This grows single, from half an inch to an inch and half in height, and is naked at the bottom, but at the top it is furnished with a crowded cluster of leaves.—The *leaves* are short, lanceolate, thick, stiff, and crowded, entire on the edges, and each tip with a white hair.—The *peduncle* is stiff, reddish, and from half an inch to upwards of an inch in length, arising from the top of the stalk out of a tubular *perichætium*.—The *capsule* is small, nodding, and quadrangular, with a distinct *apophysis* at its base: the *operculum*, like the preceding, is concave, with a small mucro issuing from the centre.—The exterior *calyptra* is sometimes reddish, but generally of a dark ferruginous colour, and about as long again as the inner one.

II. *POLYTRICHUM juniperinum*, fol. lineari-lanceolatis mucronatis patulis, marginibus inflexis integerrimis, capsula quadrangulari, apophysi subiecta. TAB. 6. FIG. 4.

P. juniperinum Willd. Fl. Berol. 305 (excluso Synon. Dillen.)

Hab. in ora occidentali America Septentrionalis.

The *stalk* is erect, from two to three inches high, and rather naked at the bottom.—The *leaves* are spreading, linear-lanceolate, and ending with sharp points, slightly hispid: their edges are entire, and fold in flat upon the surface of the leaf from both sides.—The *peduncle* varies from an inch and half to about three inches in length, and is closely surrounded at the base by a cylindrical tube or *perichatium*, which is about a quarter of an inch long, issuing from the top of the stalk.—The *capsule* is quadrangular, with an *apophysis* at the base; the *operculum* is flat but pointed in the centre, and the rim is fringed with a regular row of about sixty-four whitish dents.—The exterior *calyptra* is long and subulate, whitish at the bottom, but ferruginous at the tip, and about double the length of the inner one.

All authors I know of, who have taken up *P. juniperinum*, describe it with entire leaves, yet make no scruple in quoting for it *Dill. Musc.* 424. t. 54. f. 2. which that accurate author describes and figures with serrated leaves: it is therefore very evident the quotation must be erroneous.

Note. The *Polytrichum pulverulentum* in *Gmel. Syst. Nat.* belongs, I believe, to this section; but as I have not been able to procure a sight of the plant itself, or even of the figure of it, quoted from *Reynar. A7, Laufann.* I could not take it up in this Arrangement.

*** *Caule*

*** *Caule ramoso.*

12. *POLYTRICHUM strictum*, fol. lanceolatis acuminatis erectiusculis, marginibus inflexis integerrimis, capsulis quadrangularibus, apophysi infidentibus. TAB. 7. FIG. I.

Vaill. Par. 131. t. 23. f. 6.

Hab. in America Septentrionali, in locis sterilibus Angliæ, et in Scotia.

This species was gathered in the year 1766 on Newfoundland by Sir Joseph Banks, Bart. who described it under the foregoing name in a manuscript preserved in his library, which I was suffered to peruse in the most liberal manner. I found it about twelve years ago near Halifax in Nova Scotia, and since that time in several places on the north-west coast of America; and I lately found it also in different places in Scotland, particularly on the top of the park walls, on both sides of the road, about a mile to the eastward of Taymouth in Breadalbane, where it grows in common with *P. commune* and *P. piliferum*.

It is branched, and about two inches in height. The roots, together with the lower parts of the stem and branches, are covered with a whitish downy substance, of a spongy texture: the lower parts of the branches appear slender, from the leaves being smaller and more thinly set there than towards the tops, where the leaves are larger and more crowded.—The *leaves* are thick, stiff, erect, lanceolate and sharp-pointed, with entire edges, which, like the preceding, are folded flat back to the surface of the leaf from both sides: in a dried state the leaves press close to the stalk, and their points are slightly hispid: those which surround the base of the peduncles are mostly membranaceous and pellucid, with greenish middle nerves ending in slender filaceous tips.—The *peduncles* are from an inch to two inches in length, arising from the summits of the branches out of cylindrical tubes
nearly

nearly a quarter of an inch long, which closely furround their base.—The *capsule* is small and quadrangular, with an *apophysis* at the base: the *operculum* is reddish and flat, with a small point issuing from its centre; and the rim of the orifice is fringed with about sixty-four minute dents.—The exterior *calyptra* is conical, of a light ferruginous colour, and about double the length of the inner one.

As this species generally divides very low down, single branches of it may be carelessly pulled up or separated, in which state it may sometimes be confounded with the *P. juniperinum*; but its being rather smaller in all its parts, its leaves being shorter, stiffer, more erect and crowded towards the top of the branches, and its lower parts being generally matted together and enveloped in a whitish downy substance, will easily distinguish it.

As neither the woolly calyptra nor the downy substance about the lower parts of the plant are expressed in Vaillant's plate, I have been induced to give a new figure of it, from a specimen collected in Nova Scotia.

13. *POLYTRICHUM contortum*, fol. lineari-lanceolatis ferratis involutis ficcitate contortis, pedunculis lateralibus, capsulis cylindricis erectiusculis. TAB. 7. FIG. 2.

Hab. in ora occidentali Americae Septentrionalis.

This is from two to four inches high, and generally naked towards the bottom, but covered with leaves, and often divided into two or three branches towards the top.—The *leaves* are linear-lanceolate, with their edges turned in and finely ferrated, without any apparent middle nerve: when fresh they are of a dark green colour; but in a dried state they are contorted, and of a dull dark brown colour: they are rather thinly scattered on the stalk, excepting here and there where they form tufts by being more thickly set and somewhat

what longer at the termination of each year's growth.—The *peduncles* are from an inch to an inch and half long, and arise out of a vaginal tube about a quarter of an inch in length, at the extremity of each year's growth; but as the young shoots issue from their base, they afterward become lateral.—The *capsule* is cylindrical and somewhat erect, having a strong annulated rim fringed with about thirty-two minute dents: the *operculum* is conical and pointed.—The exterior *calyptra* is small, of an oval form, and of a light straw colour, and is about twice the length of the inner one.

This species very much resembles *P. convolutum*, but that has always a simple stalk with a single terminating peduncle, and its leaves are only slightly ferrated towards their tips; whereas this, even in its simple state, has generally two or three lateral peduncles, and the leaves are finely ferrated their whole length, which will afford sufficient marks of distinction.

14. *POLYTRICHUM rubellum*, fol. lanceolatis carinatis obtusiusculis ferratis dorso denticulatis, capsulis subcylindricis erectiusculis.

TAB. 7. FIG. 3.

Hab. in ericetis Scotiae, et locis sterilibus Angliæ.

The *stalk* of this species appears reddish, and is generally slightly branched, though not unfrequently met with single, and grows from an inch to two inches in height.—The *leaves* are obtusely lanceolate, and finely ferrated on the edges, with the middle nerve dentated on the back of each: those on the upper parts of the stalk and branches are of a dark glaucous colour, changing in the dried state to a dull blackish hue; but the lower leaves, and the bases of the upper ones, are reddish, and become whitish when dried; they are generally larger and more crowded at the top and at the divisions of the branches.—The *peduncles* very seldom exceed three in number, and
are

are from an inch to an inch and half in length: they are reddish, slightly twisted, and generally terminate the lower branches, each arising out of a cylindrical tube, about two tenths of an inch long.—The *capsule* is somewhat erect, and nearly cylindrical, having a strong annulated rim, fringed with a regular row of reddish dents: the *operculum* is long and subulate.—The exterior woolly *calyptra* is ferruginous, and about double the length of the inner one.

The only plant which this resembles is *P. aloides*, and I strongly suspect that they have been hitherto confounded together, both by Hudson and Lightfoot, under the name of *P. nanum*. It is undoubtedly a very distinct species from *P. aloides* of Hedwig, not only by its being larger in all its parts, and generally branched, but also by its leaves being serrated their whole length, and dentated on their back along the course of the middle nerve.

15. *POLYTRICHUM dentatum*, fol. lanceolatis acutis aculeato-dentatis, capsulis subcylindricis erectis. TAB. 7. FIG. 4.

Hab. in ora occidentali Americæ Septentrionalis.

It is from an inch to two inches high, and generally divided into three or four slender branches.—The *leaves* are stiff, lanceolate, acute, and strongly dentated on the edges with sharp whitish dents; their colour is a dark green when recent, but a reddish brown when dried; the middle nerve is elevated on the back of the leaf, and marked with a few dents near the tip.—The *peduncles* are generally two or three in number, of a dark reddish colour, and grow to an inch or an inch and half long: they arise from the summits of the branches out of cylindrical tubes which surround about two tenths of an inch of the base of each.—The *capsule* is somewhat cylindrical and erect; the rim is strong and fringed with minute dents: the *operculum* is flat, with a small point in the centre.—The exterior
calyptra

calyptra is of a ferruginous colour, and about twice the length of the inner one.

This is in Sir Joseph Banks's Herbarium, and was first brought from the north-west coast of America by Mr. Nelson, who accompanied Captain Cook in his last voyage. I have since frequently met with it myself in the pine-forests on the same coast; but it has not been found, to my knowledge, any where else.

16. *POLYTRICHUM urnigerum*, fol. lanceolatis acuminatis denticulato-ferratis rigidis, capsulis cylindricis erectis.

P. urnigerum Linn. *Sp. Pl.* 1573. *Dill. Musc.* 427. t. 55. f. 5.

Habitat in ericetis montosis Angliæ, &c.

This grows from an inch to three inches in height; the lower part of the *stalk* is naked, but the upper part is crowded with leaves, and generally divided into numerous branches.—The *leaves* are lanceolate, sharp-pointed, rigid, and irregularly ferrated with acute dents.—The *peduncles* are about an inch or an inch and half long, and arise pretty copiously from the summits of the lower branches, and not from the *axillæ* of the leaves, as they have been generally described: the vaginal *perichæetium*, which closely furrounds the base of each, is about an eighth of an inch in length.—The *capsule* is cylindrical and erect, having the rim wide, and fringed with minute dents. The *operculum* is flat, with a small point in the centre, and covers the rim with a thick obtuse edge.—The exterior *calyptra* is small and subulate, of a light ferruginous colour at the top, but whitish towards the bottom, and is rather more than twice the length of the inner one.

17. *POLYTRICHUM septentrionale*, fol. lanceolatis acutis apice obscure ferrulatis, capsulis ovatis erectiusculis, operculo mucronato recurvato. TAB. 7. FIG. 5.

P. ramosum Gunner. Fl. Norveg. 814. Fl. Dan. tab. 297.

P. septentrionale Swartz in Act. Stockh. 1795. p. 270.

Hab. in alpinis Norvegicis.

This plant is about an inch and half in height, and from a small naked stem suddenly divides into short stiff crowded branches.—The leaves are short, narrow, lanceolate, acute, and entire on the edges, except towards their tips, where, with the assistance of a magnifier, they may be perceived slightly ferrulated: they are all nearly of the same size, and equally dispersed round the branches.—The peduncles are stiff, yellowish, about half an inch long, arising from the summits of the branches out of small sheathy tubes, which closely embrace their bases.—The capsule is ovate and nearly erect: the operculum is conical, ending in a long recurved mucro.—The exterior calyptra is of a light ferruginous colour, and about twice the length of the inner one.

This is to be distinguished from *P. alpinum* by being much smaller in all its parts,—by its leaves being shorter, more erect, and nearly entire on their edges,—by its capsules being mostly erect, and its operculum ending in a long recurved mucro.

The shape of the capsule in the plate above quoted from the Flora Danica is not sufficiently accurate, as it does not agree either with the plant or the description of it inserted in the same work. I have therefore given a new figure of it from a specimen sent me some years ago by Dr. Swartz of Stockholm, a learned and indefatigable member of this Society, to whom I am indebted for this, and many other interesting communications.

18. *POLYTRICHUM alpinum*, fol. lineari-lanceolatis denticulato-ferratis rigidis, capsulis ovatis subnutantibus.

P. alpinum Linn. *Sp. Pl.* 1573. *Dill. Musc.* 427. tab. 55. f. 4.

Hab. in ericetis montosis, in boreali parte Europæ.

The *stalk* of this is from two to three inches in height, and divides into numerous branches.—The *leaves* are strong, stiff, linear-lanceolate, and finely ferrated on the edges with sharp minute dents: they are generally of a dark brown on the lower parts of the plant, but light green on the upper branches, where they also become brown in a dried state.—The *peduncles* are numerous, from an inch to an inch and half long, of a deep straw-colour, and issue from the summits of the branches out of close cylindrical tubes, which are about two tenths of an inch in length.—The *capsule* is ovate, tumid, and a little inclined or nodding. The *operculum* is conical and pointed.—The exterior *calyptra* is small, subulate, of a ferruginous colour, and about a third longer than the inner one.

19. *POLYTRICHUM sylvaticum*, fol. lineari-lanceolatis acuminatis ferratis rigidis, capsulis oblongis cernuis subincurvis. TAB. 7.

FIG. 6.

Hab. in sylvis abietinis oræ occidentalis Americæ septentrionalis.

This grows from two to four inches and sometimes even to six inches in height, and is loosely divided into four or five branches; the lower part of the *stalk* is stiff and naked, but the upper part and branches are crowded with long narrow spreading leaves.—The *leaves* are linear-lanceolate, ending with setaceous points, and finely ferrated on the edges, which in a dried state turn in so as to appear channelled; the lower leaves are of a reddish brown colour, but the upper ones are of a dark green.—The *peduncles* are from an

inch and half to two inches long, and arise from the summits of the branches out of sheathy tubes, which are about two eighths of an inch in length; they are shining, and of a deep straw-colour at their tops, but reddish towards their bases.—The *capsule* is oblong, a little inclined and somewhat incurved, and narrower towards the rim, where it is fringed with a regular row of minute whitish dents, to the number of about sixty-four. The *operculum* is flat, with a setaceous point issuing from the centre.—The exterior woolly *calyptra* is pointed, of a light ferruginous colour, and about a third part longer than the inner one, which is of the same colour, but darker.

In reference to TAB. VI and VII. it is to be observed, that adjoining to almost every figure, the exterior *calyptra* is laid open to show the inner one.—The tubular *perichætium* that surrounds the base of the peduncle is represented both in its natural size and enlarged.—A *leaf* of each is magnified to show its figure, and the *capsule* is exhibited either in its natural size or magnified, in order to give a more accurate idea of its shape.